

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 January 2008 (10.01.2008)

PCT

(10) International Publication Number
WO 2008/005146 A2

(51) International Patent Classification:
H01P 1/04 (2006.01)

(21) International Application Number:
PCT/US2007/013508

(22) International Filing Date: 8 June 2007 (08.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/479,893 30 June 2006 (30.06.2006) US

(71) Applicant (for all designated States except US): **HARRIS STRATEX NETWORKS OPERATING CORPORATION** [US/US]; Research Triangle Park, 637 Davis Drive, Morrisville, NC 27560 (US).

(72) Inventors; and

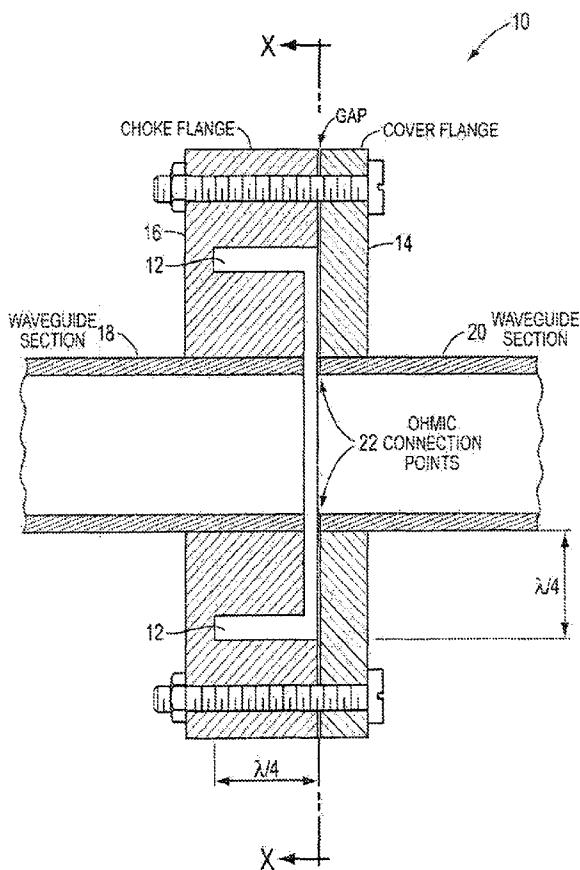
(75) Inventors/Applicants (for US only): **CHAO, Yen-Fang** [US/US]; 5009 Carducci Drive, Pleasanton, CA 94588 (US). **CORKILL, Bruce** [NZ/NZ]; 4 Epuni Street, Lower Hutt (NZ). **TIONGSON, Eric** [US/US]; 363 Cerro Court, Daly City, CA 94015 (US). **RUIZ, John** [US/US]; 2326 Kenwood Avenue, San Jose, CA 95128 (US).

(74) Agents: **SHERRY, Leah** et al.; Thelen Reid Brown Raysman & Steiner LLP, 2225 East Bayshore Road, Suite 210, Palo Alto, CA 94303 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,

[Continued on next page]

(54) Title: WAVEGUIDE INTERFACE



(57) Abstract: Waveguide flanges for joining waveguide sections or components are designed to achieve mechanical strength and exhibit desired electrical properties such as relatively low insertion loss and high return loss. The present invention contemplates waveguide interfaces with a new choke flange designed to engage with a shield flange and provide a joint with improved electrical properties. The new choke designs produce a virtual continuity through the waveguide joints and minimize electrical energy leakage. The electrical and mechanical properties of the joint in the waveguide interfaces are robust and able to tolerate lower levels of parts precision, imperfect mating of the flanges without metal-to-metal contact and gaps up to 0.06" or more between the mating flange surfaces.

WO 2008/005146 A2



PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA,
ZM, ZW.

PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

(48) Date of publication of this corrected version:

29 May 2008

(15) Information about Correction:

see Notice of 29 May 2008